

VACCINE STORAGE AND HANDLING TABLE (Post on Your Storage Units)

It is important to follow proper vaccine storage and handling procedures. Failure to do so can reduce vaccine potency resulting in patients who are not fully protected from disease. This guidance will help ensure your vaccines are stored properly.

VACCINES and OTHER IMMUNIZING AGENTS	ARRIVAL CONDITION ³	STORAGE REQUIREMENTS
DTaP, DTaP-HepB-IPV (Pediarix [®]), DTaP-IPV-Hib-HepB (Vaxelis [®]), DTaP-IPV (Quadracel [®] , Kinrix [®]), DTaP-IPV/Hib (Pentacel [®]) ¹ , Td, Tdap, HepA, HepB (Engerix-B [®] , Recombivax HB [®] , Heplisav-B [®] , PreHevbrio [®]), HepA-HepB (Twinrix [®]), Hib (PedvaxHIB [®] , ActHIB [®] , Hiberix ^{®1}), 9vHPV, IPV, MenACWY (Menveo ^{®1,2} , MenQuadfi [®]), MenB (Bexsero [®] , Trumenba [®]), MenABCWY (Penbraya [™]), Pneumococcal (PCV13, PCV15, PCV20, PPSV23), aIIIV4 (Fluad [®]), HD-IIIV4 (Fluzone [®] High-Dose), IIV4, cIIIV4 (Flucelvax [®]), RIV4 (Flublok [®]), LAIV4, Recombinant Zoster Vaccine (RZV, Shingrix) ¹ , Respiratory Syncytial Virus (RSV, Abrysvo [™] , Arexvy) ¹	Packed with refrigerant. Vaccine should not have been frozen.	Refrigerate immediately upon arrival at 36.0°F to 46.0°F (2.0°C to 8.0°C). DO NOT FREEZE⁴ . Protect from light: Hib (Hiberix)¹, 9vHPV, IPV, MenACWY (Menveo)¹, MenB (Bexsero), aIIIV4, IIV4, LAIV4, cIIIV4, RIV4, DTaP-IPV-Hib-HepB (Vaxelis), HepB (PreHevbrio, Recombivax HB), Pneumococcal (PCV15, PCV20), RZV (Shingrix)¹, and Arexvy.¹ MenB (Trumenba) syringes, Pneumococcal (PCV20) syringes, and MenABCWY (Penbraya) carton are recommended to lay flat on shelf to minimize re-dispersion time. Diluent: When packaged with vaccine, store together in the original box in the refrigerator. Never freeze diluent.
Rotavirus Vaccines (RV): RV1 (Rotarix [®]) ^{1,2} RV5 (RotaTeq [®])	Packed with refrigerant. Vaccine should not have been frozen.	Refrigerate immediately upon arrival at 36.0°F to 46.0°F (2.0°C to 8.0°C). DO NOT FREEZE⁴ . RV1 oral dosing applicator of diluent (check presentation)^{1,2}: Store separately at room temperature or refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C). Never freeze diluent. Protect both RV vaccines from light.
Measles, Mumps, Rubella (MMR, M-M-R [®] II-Merck) ¹ Measles, Mumps, Rubella (MMR, Priorix [®] -GSK) ¹	M-M-R[®]II -vaccine may arrive frozen or refrigerated. Priorix[®] -Packed with refrigerant. Vaccine should not have been frozen.	M-M-R[®]II: Refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C) OR freeze at -58.0°F to +5.0°F (-50.0°C to -15.0°C) upon arrival. Priorix: Do not store in freezer. Refrigerate immediately upon arrival at 36.0°F to 46.0°F (2.0°C to 8.0°C). Diluent: Store separately at room temperature or refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C). Never freeze diluent. Protect M-M-R[®]II and Priorix[®] from light.
Varicella (Varivax) ¹ Measles, Mumps, Rubella, Varicella (MMRV, ProQuad [®]) ¹	Packed with non-reusable frozen gel packs. Vaccine should arrive frozen.	Maintain continuously in a frozen state at temperature -58.0°F to +5.0°F (-50.0°C to -15.0°C). Diluent: Store separately at room temperature or refrigerate at 36.0°F to 46.0°F (2.0°C to 8.0°C). Protect Varicella¹, and MMRV¹ from light.

See footnotes and additional information on page 3.

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Pfizer-BioNTech COVID-19 Vaccine	<p>Glass Prefilled Syringes in carton with bright pink stripe. Packed with refrigerant. Vaccine should not have been frozen.</p> <p>Plastic Prefilled Syringes, Single-Dose Vials (SDV) and Multi-Dose Vials (MDV) should arrive at either ultra cold temperatures or refrigerated temperatures. If received at 36°F to 46°F (2°C to 8°C), should be stored between 36°F to 46°F (2°C to 8°C), should not be refrozen.</p> <p>Ultra Cold vaccine shipment packed with dry ice requires special handling⁵.</p>	<p>Glass Prefilled Syringes: store between 36°F and 46°F (2°C and 8°C) until the expiration date printed on the carton and syringe labels. DO NOT FREEZE.⁴</p> <p>Plastic Prefilled Syringes, SDV's, and MDV's¹: store between -130°F and -76°F (-90°C and -60°C) until the expiration date, or between 36°F and 46°F (2°C and 8°C) for up to 10 weeks. If received at 36°F and 46°F (2°C and 8°C), should be stored between 36°F and 46°F (2°C and 8°C), should not be refrozen. DO NOT STORE between -25°C and -15°C (-13°F and 5°F).</p>
Moderna COVID-19 Vaccine	Vaccine should arrive frozen.	<p>Store frozen between -58°F and 5°F (-50°C and -15°C) until the expiration date or between 36°F and 46°F (2°C and 8°C) for 30 days.</p> <p>Protect from light.</p>
Novavax COVID-19 Vaccine	Packed with refrigerant. Vaccine should not have been frozen.	<p>Store the MDV between 36°F and 46°F (2°C and 8°C). DO NOT FREEZE.⁴</p> <p>Protect from light.</p>
Mpox (JYNNEOS)	Vaccine should arrive frozen.	<p>Store frozen between -13°F and 5°F (-25°C and -15°C) until the expiration date; may be stored between 36°F and 46°F (2°C and 8°C) for 8 weeks. Do not refreeze.</p> <p>Protect from light.</p>
Nirsevimab (Beyfortus™)	Packed with refrigerant. Vaccine should not have been frozen.	<p>Store between 2°C and 8°C (36°F and 46°F). DO NOT FREEZE.⁴</p> <p>Protect from light.</p>

See footnotes and additional information on page 3.

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PLEASE NOTE: This reference is for storage and handling informational purposes only. These recommendations are not a substitute for the package insert included with each biologic.

- ¹ Use only the diluent that comes with the vaccine. For more information on vaccines that need to be reconstituted, refer to "[Vaccines with Diluents: How to Use Them](#)" at immunize.org.
- ² Rotarix and Menveo vaccines are available as either a liquid formulation that does not require dilution or as a lyophilized vaccine that requires reconstitution.
- ³ If you have questions about the condition of the vaccine at the time of delivery, immediately place the vaccine in the recommended storage unit, label "DO NOT USE" and contact the manufacturer. If you have questions about the condition of Vaccines for Children (VFC) vaccine, contact your local health department.
- ⁴ Discard if the vaccine has been frozen, unless the affected vaccine is VFC vaccine – in which case, mark vaccine "DO NOT USE", store at manufacturer recommended temperature, and contact the LHD for guidance.
- ⁵ For information on how to safely handle dry ice, refer to "[Dry Ice Safety for Healthcare Professionals \(cdc.gov\)](#)."

Proper vaccine storage and handling practices play a very important role in protecting individuals and communities from vaccine-preventable diseases. Vaccine quality is the shared responsibility of everyone, from the time vaccine is manufactured until it is administered.

- Check expiration dates weekly. Rotate stock so that soon-to-expire vaccine is used first.
- Never use expired vaccines or diluents. Once expired, remove from the unit immediately.
- Have a calibrated thermometer with current Certificate of Traceability and Calibration in each storage unit. Keep calibration up to date.
- Check the minimum and maximum temperature on both the refrigerator and freezer at the start of each workday. Also, check the current temperature on both the refrigerator and freezer when you arrive and before you leave for the day. Documentation of min/max and twice daily temperatures is a requirement for VFC providers.
- Vaccines should only be transported when absolutely necessary such as during an emergency. The Michigan Department of Health & Human Services (MDHHS), the Centers for Disease Control and Prevention (CDC), and Merck do not recommend transport of varicella-containing vaccine. For detailed guidance on transport, see "[MDHHS Guidance on Vaccine Transport](#)."
- For specific vaccine storage and handling information for COVID-19 vaccines see: [U.S. COVID-19 Vaccine Product Information | CDC](#).
- For further information on storage and handling of vaccines, refer to CDC's "[Vaccine Storage and Handling Toolkit](#)."